

- 20 -

## ABSTRACT

## IMPROVEMENTS RELATING TO VELOCITY EXTRACTION

A method of extracting a radial velocity characteristic of a target from coherent pulse bursts comprising the steps of applying to data a 'best fit' model of the echo returns from a target in the presence of clutter to obtain a residue (error) value and minimising the error value by a predetermined method to give the best fit value for the target radial velocity. The method enables more information to be retrieved from coherent bursts than conventional methods and therefore greatly enhances performance of radiation pulse echo detection.

10

(Fig. 1)